

BEST AVAILABLE COPY

In the Claims:

Please amend claims 49-56, 60, 69-72, 77, and 108 as follows:

49. (Currently Amended) An isolated nucleic acid ~~that encodes a plant retroviral primer binding site~~ comprising SEQ ID NO:1 or SEQ ID NO:2.

B' 50. (Currently Amended) An isolated nucleic acid ~~that encodes at least a portion of a plant retroelement and that comprises a nucleic acid~~ selected from the group consisting of:

(a) a nucleic acid having that is a plant retroelement primer binding site and that has at least 95% identity to the sequence shown in SEQ ID NO:2, ~~wherein said identity can be determined using the DNAsis computer program and default parameters;~~

(b) a nucleic acid having the sequence shown in SEQ ID NO:2; and

(c) a nucleic acid complementary to the sequence shown in SEQ ID NO:2.

51. (Currently Amended) A vector that can transfer a nucleic acid to a plant cell, said vector comprising the ~~isolated~~ nucleic acid of claim 49 or 50.

52. (Currently Amended) A seed comprising the ~~isolated~~ nucleic acid of claim 49 or 50.

53. (Currently Amended) A plant comprising the ~~isolated~~ nucleic acid of claim 49 or 50.

54. (Currently Amended) The plant of claim 53, wherein said which plant is soybean; maize; sugar cane; beet; tobacco; wheat; barley; poppy; rape; sunflower; alfalfa; sorghum; rose; carnation; gerbera; carrot; tomato; lettuce; chicory; pepper; melon; cabbage; oat; rye; cotton; flax; potato; pine; walnut; citrus; hemp; oak; rice; petunia; orchids; Arabidopsis; broccoli; cauliflower; brussel sprouts; onion; garlic; leek; squash; pumpkin; celery; pea; bean; strawberries; grapes; apples; pears; peaches; banana; palm; cocoa; cucumber; pineapple; apricot; plum; sugarbeet; lawn grasses; maple; triticale; safflower; peanut; or olive.

55. (Currently Amended) The plant of claim 53, wherein said plant which is soybean.

56. (Currently Amended) The ~~isolated~~ nucleic acid of claim 49 or 50, ~~which~~ further comprising comprises gag, pol and env genes, wherein said gag gene and which comprises adenine-thymidine-guanidine as the ~~gag gene~~ start codon.

B2 60. (Currently Amended) A vector that can transfer a nucleic acid to a plant cell, said vector comprising the ~~isolated~~ nucleic acid of claim 56.

BEST AVAILABLE COPY

69. (Currently Amended) The ~~isolated~~ nucleic acid of claim 49 or 50, further comprising a wherein said nucleic acid molecule encodes at least a portion of a plant reverse transcriptase sequence and comprises a nucleic acid sequence selected from the group consisting of:

(a) a nucleic acid ~~sequence that has~~ having at least 70% identity to the sequence shown in SEQ ID NO:11, wherein said nucleic acid encodes a reverse transcriptase ~~wherein said identity can be determined using the DNAsis computer program and default parameters;~~

(b) a nucleic acid ~~sequence~~ having the sequence shown in SEQ ID NO:11;

^B
(c) a nucleic acid ~~sequence~~ that encodes an amino acid sequence having that has at least 79% identity to the sequence shown in SEQ ID NO:12, wherein said nucleic acid encodes a reverse transcriptase ~~wherein said identity can be determined using the DNAsis computer program and default parameters;~~

(d) a nucleic acid ~~sequence~~ that encodes an amino acid having the sequence shown in SEQ ID NO:12; and

(e) a nucleic acid having a sequence fully complementary to a nucleic acid sequence selected from the group consisting of: a nucleic acid sequence of (a); a nucleic acid sequence of (b); a nucleic acid sequence of (c); or a nucleic acid sequence of (d); and a nucleic acid sequence of (e).

70. (Currently Amended) A plant cell comprising the an isolated nucleic acid molecule of claim 69.

71. (Currently Amended) A seed comprising the an isolated nucleic acid molecule of claim 69.

72. (Currently Amended) A vector that can transfer a nucleic acid to a plant cell, said vector comprising the isolated nucleic acid of claim 69.

^{B4}
77. (Currently Amended) The ~~isolated~~ nucleic acid of claim 49 or 50 which further encodes at least one agronomically-significant characteristic selected from the group consisting of male sterility, self-incompatibility, foreign organism resistance, an improved biosynthetic pathway, environmental tolerance, a photosynthetic pathway, fruit ripening, oil biosynthesis, pigment biosynthesis, seed formation, starch metabolism, salt tolerance, cold/frost tolerance, drought tolerance, and tolerance to anaerobic conditions.

Applicant : David A. Wright et al.
Serial No. : 09/965,553
Filed : September 27, 2001
Page : 4 of 5

Attorney's Docket No.: 08411-030002/ISURF 02410-
D1

BEST AVAILABLE COPY

78. (Previously added) A method to impart agronomically significant characteristics to a plant, comprising contacting the nucleic acid of claim 77 with at least one plant cell under conditions sufficient to allow said nucleic acid to enter said cell.

108. (Currently Amended) A method to transfer nucleic acid into a plant cell, comprising contacting the nucleic acid of claim 49, or 50 ~~or 79~~ with at least one plant cell under conditions sufficient to allow said nucleic acid to enter said cell.

B3